Curriculum Vitae

Dr. Tarun Kumar Dua

Designation Assistant Professor

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Subject Specialization: Pharmacognosy

Academic qualification:

2007: B. Pharm, Jadavpur University, India

2010: M. Pharm, Jadavpur University, India

2018: Ph.D in Pharmacy, Jadavpur University, India

Professional experiences:

Teaching Experience: 5 years

February 08, 2019 to till date	Assistant Professor, Department of Pharmaceutical Technology, University of North Bengal, Darjeeling, W.B., India
February 01, 2011 to April 13, 2013	Lecturer at GRY Institute of Pharmacy, Borawan, Madhya Pradesh, India

Research Experience: 5.5 years

April 17, 2013- April 16, 2017	CSIR-Senior Research Fellow (SRF)
June 02, 2017- February 07, 2019	Research Associate (RA) in a CSIR funded research scheme

Areas of Research Interest: Phytochemistry, Phytotherapy, Toxicology, Molecular Biology.

No. of M.Pharm students: **(a) Supervised:** 1 **(b) Ongoing:** 05.

No. of Publications: **(a) Journal(s): 30 (b) Book(s): 03 (c) Book chapter(s): 02**

List of Publications:

Research papers:

1. **Dua, T.K.,** Palai, S., Roy, A. et al. Protective effect of probiotics against acetaminophen induced nephrotoxicity. Mol Biol Rep (2022). https://doi.org/10.1007/s11033-022-07534-7. [Impact factor: 2.316]
2. Giri, S., Sen, S., Singh, R., Paul, P., Sahu, R., Nandi, G. and **Dua, T.K.** (2022) Current challenges in different approaches to control COVID-19: a comprehensive review. Bulletin of the National Research Centre, 46(1), pp.1-13. https://doi.org/10.1186/s42269-022-00730-2. PMID: 35261539.
3. Giri, S., Sahu, R., Paul, P., Nandi, G., & **Dua, T.K.** (2022) An updated review on *Eupatorium adenophorum* Spreng.[*Ageratina adenophora* (Spreng.)]: traditional uses, phytochemistry, pharmacological activities and toxicity. Pharmacological Research-Modern Chinese Medicine, 100068. https://doi.org/10.1016/j.prmcm.2022.100068.
4. Ashraf, G. J., Das, P., **Dua, T.K.,** Paul, P., Nandi, G., & Sahu, R. (2021) High-performance thin-layer chromatography based approach for bioassay and ATR–FTIR spectroscopy for the evaluation of antioxidant compounds from *Asparagus racemosus* Willd. Aerial parts. Biomedical Chromatography, e5230. https://doi.org/10.1002/bmc.5230. PMID: 34407236. [Impact factor: 1.902]
5. **Dua T. K.**, Joardar S, Chakraborty P, Bhowmick S, Saha A, De Feo V, Dewanjee S. (2021) Myricitrin, a Glycosyloxyflavone in *Myrica esculenta* Bark Ameliorates Diabetic Nephropathy via Improving Glycemic Status, Reducing Oxidative Stress, and Suppressing Inflammation. Molecules, 26(2):E258. https://doi.org/10.3390/molecules26020258. PMID: 33419120. [Impact factor: 5.985]
6. Das, S., Dewanjee, S., **Dua, T.K.,** Joardar, S., Chakraborty, P., Bhowmick, S., Saha, A., Bhattacharjee, S. and De Feo, V., (2019) Carnosic Acid Attenuates Cadmium Induced Nephrotoxicity by Inhibiting Oxidative Stress, Promoting Nrf2/HO-1 Signalling and Impairing TGF-β1/Smad/Collagen IV Signalling. Molecules, 24(22), p.4176. https://doi.org/10.3390/molecules24224176. PMID: 31752142. [Impact factor: 5.985]
7. Joardar, S., Dewanjee, S., Bhowmick, S., **Dua, T.K.,** Das, S., Saha, A. and De Feo, V., (2019) Rosmarinic Acid Attenuates Cadmium-Induced Nephrotoxicity via Inhibition of Oxidative Stress, Apoptosis, Inflammation and Fibrosis. International journal of molecular sciences, 20(8), p.2027. https://doi.org/10.3390/ijms20082027. PMID: 31022990. [Impact factor: 4.183]
8. Sahu, R., **Dua, T.K**., Das, S., De Feo, V., Dewanjee, S. (2019) Wheat phenolics suppress doxorubicin-induced cardiotoxicity via inhibition of oxidative stress, MAP kinase activation, NF-κB pathway, PI3K/Akt/mTOR impairment, and cardiac apoptosis. Food and Chemical Toxicology. 125, 503-519. https://doi.org/10.1016/j.fct.2019.01.034. PMID: 30735749. [Impact factor: 6.023]
9. Dewanjee, S., Das, S., Das, A.K., Bhattacharjee, N., Dihingia, A., **Dua, T.K.,** Kalita, J., Manna, P. (2018) Molecular mechanism of diabetic neuropathy and its pharmacotherapeutic targets. European Journal of Pharmacology. 15, 472-523. https://doi.org/10.1016/j.ejphar.2018.06.034. PMID: 29966615. [Impact factor: 4.432**]**
10. Das, S., Joardar, S., Manna, P., **Dua, T.K**., Bhattacharjee, N., Khanra, R., Bhowmick, S., Kalita, J., Saha, A., Ray, S., De Feo, V., Dewanjee, S. (2018) Carnosic acid, a natural diterpene, attenuates arsenic-induced hepatotoxicity via reducing oxidative stress, MAPK activation, and apoptotic cell death pathway. Oxidative Medicine and Cellular Longevity. 2018:1421438. https://doi.org/10.1155/2018/1421438. PMID: 29854073. [Impact factor: 6.543**]**
11. Khanra, R., Bhattacharjee, N., **Dua, T.K.,** Nandy, A., Saha, A., Kalita, J., Manna, P., Dewanjee, S. (2017) Taraxerol, a pentacyclic triterpenoid, from Abroma augusta leaf attenuates diabetic nephropathy in type 2 diabetic rats. Biomedicine & Pharmacotherapy. 9;94:726-741. https://doi.org/10.1016/j.biopha.2017.07.112. PMID: 28802226. [Impact factor: 6.529]
12. Dewanjee, S., Dua, T.K., Bhattacharjee, N., Das, A., Gangopadhyay, M., Khanra, R., Joardar, S., Riaz, M., De Feo, V., Zia-Ul-Haq, M. (2017). Natural products as alternative choice for P-glycoprotein (P-gp) inhibition. Molecules. 22(6). https://doi.org/10.3390/molecules22060871. PMID: 28587082. [Impact factor: 5.985]
13. Dewanjee, S., Joardar, S., Bhattacharjee, N., **Dua, T.K.,** Das, S., Kalita, J., Manna, P. (2017). Edible leaf extract of *Ipomoea aquatica* Forssk. (Convolvulaceae) attenuates doxorubicin-induced liver injury via inhibiting

oxidative impairment, MAPK activation and intrinsic pathway of apoptosis. Food and Chemical Toxicology. 105, 322-336. https://doi.org/10.1016/j.fct.2017.05.002. PMID: 28478100. [Impact factor: 6.023]

14. Bhattacharjee, N., **Dua, T.K.,** Khanra, R., Joardar, S., Nandy, A., Saha, A., De Feo, V., Dewanjee, S. (2017). Protocatechuic acid, a phenolic from *Sansevieria roxburghiana* leaves, suppresses diabetic cardiomyopathy via stimulating glucose metabolism, ameliorating oxidative stress and inhibiting inflammation. Frontier in Pharmacology. 8, 251. https://doi.org/10.3389/fphar.2017.00251. PMID: 28533752. [Impact factor: 4.400]

15. Khanra, R., Dewanjee, S., **Dua, T.K.,** Bhattacharjee, N. (2017). Taraxerol, a pentacyclic triterpene from *Abroma augusta* leaf, attenuates acute inflammation via inhibition of NF-κB signaling. Biomedicine & Pharmacotherapy. 88, 918-923. https://doi.org/10.1016/j.biopha.2017.01.132. PMID: 28178622. [Impact factor: 6.529]

16. Bhattacharjee, N., Khanra, R., **Dua, T.K.,** Das, S., De, B., Zia-Ul-Haq, M., De Feo, V., Dewanjee, S. (2016). *Sansevieria roxburghiana* Schult. & Schult. F. (family: Asparagaceae) attenuates type 2 diabetes and its associated cardiomyopathy. Plos One. 11(11),e0167131. https://doi.org/10.1371/journal.pone.0167131. PMID: 28178622. [Impact factor: 3.240]

17. **Dua, T.K.,** Dewanjee, S., Khanra, R., Joardar, S., Barma, S., Das, S., Zia-Ul-Haq, M., De Feo, V. (2016). Cytoprotective and antioxidant effects of an edible herb, *Enhydra fluctuans* Lour. (Asteraceae), against experimentally induced lead acetate intoxication. Plos One. 11(2),e0148757. https://doi.org/10.1371/journal.pone.0148757. PMID: 26859407. [Impact factor: 3.240]

18. **Dua, T.K.,** Dewanjee, S., Khanra, R. (2016). Prophylactic role of *Enhydra fluctuans* against arsenic-induced hepatotoxicity via anti-apoptotic and antioxidant mechanisms. Redox Report. 21, 147-154. https://doi.org/10.1179/1351000215Y.0000000021. PMID: 26066906. [Impact factor: 4.412]

19. **Dua, T.K.,** Dewanjee, S., Gangopadhyay, M., Khanra, R., Zia-Ul-Haq, M., De Feo, V. (2015). Ameliorative effect of water spinach, *Ipomoea aquatica* (Convolvulaceae), against experimentally induced arsenic toxicity. Journal of Translational Medicine. 13, 81. https://doi.org/10.1186/s12967-015-0430-3. PMID: 25890105. [Impact factor: 5.531]

20. Khanra, R., Dewanjee, S., **Dua, T.K.,** Sahu, R., Gangopadhyay, M., De Feo, V., Zia-Ul-Haq, M. (2015). *Abroma augusta* L. (Malvaceae) leaf extract attenuates diabetes induced nephropathy and cardiomyopathy via inhibition of oxidative stress and inflammatory response. Journal of Translational Medicine. 13, 6. https://doi.org/10.1186/s12967-014-0364-1. PMID: 25591455. **[**Impact factor: 5.531**]**

21. Dewanjee, S., Gangopadhyay, M., Bhaqttacharya, N., Khanra, R., **Dua, T.K.** (2015). Bioautography and its scope in the field of natural product chemistry. Journal of Pharmaceutical Analysis. 5, 75-84. https://doi.org/10.1016/j.jpha.2014.06.002. PMID: 29403918. **[**Impact factor: 4.769]

22. **Dua, T.K.,** Dewanjee, S., Khanra, R., Bhattacharya, N., Bhaskar, B., Zia-Ul-Haq, M., De Feo, V. (2015). The effects of two common edible herbs, *Ipomoea aquatica* and *Enhydra fluctuans*, on cadmium-induced pathophysiology: a focus on oxidative defence and anti-apoptotic mechanism. Journal of Translational Medicine. 13, 245. https://doi.org/10.1186/s12967-015-0598-6. PMID: 26215156. [Impact factor: 5.531**]**

23. Dewanjee S., **Dua T.K.,** Khanra R., Das S., Barma S., Joardar S., Bhattacharjee N., Zia-Ul-Haq M., Jaafar H.Z. (2015). Water Spinach, *Ipomoea aquatica* (Convolvulaceae), Ameliorates Lead Toxicity by Inhibiting Oxidative Stress and Apoptosis. PLoS One. 10(10):e0139831. https://doi.org/10.1371/journal.pone.0139831. PMID: 26473485. [Impact factor: 3.240]

24. Dewanjee, S., **Dua, T.K.,** Sahu, R. (2013). Potential anti-Inflammatory effect of *Leea macrophylla* Roxb. leaves: a wild edible plant. Food and Chemical Toxicology. 59, 514-520. https://doi.org/10.1016/j.fct.2013.06.038. PMID: 23831308. [Impact factor: 6.023]

25. Sahu, R., Dewanjee, S., **Dua, T.K.,** Gangopadhyay, M., Das, A.K., Dey, S.P. (2012). Dereplication coupled with in vitro antioxidant assay of two flavonoid glycosides from *Diospyros peregrina* fruit. Natural Product Research. 26, 454-459. https://doi.org/10.1080/14786411003792199. PMID: 21442546. [Impact factor: 2.861]

26. Dewanjee, S., Mandal, V., Sahu, R., **Dua, T.K.,** Manna, A., Mandal, S.C. (2011). Anti-inflammatory activity of a polyphenolic enriched extract of *Schima wallichii* bark. Natural Product Research. 25, 696-703. https://doi.org/10.1080/14786410802560732. [Impact factor: 2.861]

27. Dewanjee, S., Maiti, A., Sahu, R., **Dua, T.K.,** Mandal, V. (2011). Effective control of type 2 diabetes through antioxidant defense by edible fruits of *Diospyros peregrina*. Evidence-based Complementary and Alternative Medicine. 2011. art. no. 675397. https://doi.org/10.1093/ecam/nep080. PMID: 19584081. [Impact factor: 2.629]
28. Das, A.K., Sahu, R., **Dua, T.K.,** Bag, S., Gangopadhyay, M., Sinha, M.K., **Dewanjee, S.** (2010). Arsenic-induced myocardial injury: Protective role of *Corchorus olitorius* leaves. Food and Chemical Toxicology. 48, 1210-1217. https://doi.org/10.1016/j.fct.2010.02.012. PMID: 20156518. [Impact factor: 6.023]
29. Das, A.K., Dewanjee, S., Sahu, R., **Dua, T.K.,** Gangopadhyay, M., Sinha, M.K. (2010). Protective effect of *Corchorus olitorius* leaves against arsenic induced oxidative stress in rat brain. Environmental Pharmacology and toxicology. 29, 64-69. https://doi.org/10.1016/j.etap.2009.10.002. PMID: 21787584. [Impact factor: 2.084]
30. Das, A.K., Bag, S., Sahu, R., **Dua, T.K.,** Sinha, M.K., Gangopadhyay, M., Zaman, K., Dewanjee, S. (2010). Protective effect of *Corchorus olitorius* leaves on sodium arsenite-induced toxicity in experimental rats. Food and Chemical Toxicology. 48, 326-335. https://doi.org/10.1016/j.fct.2009.10.020. PMID: 19852998. [Impact factor: 6.023]
31. Dewanjee, S., Maiti, A., Sahu, R., **Dua, T.K.,** Mandal, S.C. (2009). Study of anti-inflammatory and antinociceptive activity of hydroalcoholic extract of *Schima wallichii* bark. Pharmaceutical Biology. 47, 402-407. https://doi.org/10.1080/13880200902758824. [Impact factor: 3.503]

Book

1. Nutraceuticals: Role of food as medicine. 2021. Tarun Kumar Dua, Paramita Paul. LAP LAMBERT Academic Publishing. ISBN: 978-620-4-20310-2.

Book Chapters

1. Paul, P., Mandal, S., **Dua**, **T.K.,** Mandal, D., and Deepa, R.M., 2021. Smart multifunctional nanosystem: Next-generation drug delivery platform for drug-resistant breast cancer. *In Multifunctional Theranostic Nanomedicines in Cancer* (pp. 177-199). Academic Press. https://doi.org/10.1016/B978-0-12-821712-2.00012-8.
2. Dewanjee, S., Paul, P., **Dua**, **T.K.,** Bhowmick, S. and Saha, A., 2020. Big Leaf Mahogany Seeds: *Swietenia macrophylla* Seeds Offer Possible Phytotherapeutic Intervention Against Diabetic Pathophysiology. *In Nuts and Seeds in Health and Disease Prevention* (pp. 543-565). Academic Press. https://doi.org/10.1016/B978-0-12-818553-7.00038-3.
3. **Dua, T.K.** and Paul, P., 2020. Naturally Occurring Coloring and Flavoring Agents. *In Plant-derived Bioactives* (pp. 549-569). Springer, Singapore. https://doi.org/10.1007/978-981-15-1761-7_23.

Achievement & wards:

1. Awarded CSIR-Senior Research Fellowships (SRF-Direct) in2013.
2. Selected as Research Associate (RA) in a CSIR funded research scheme at Department of Pharmaceutical Technology, Jadavpur University, Kolkata.

Membership of Learned Societies:

1. Life Member of Association of Pharmaceutical Teachers of India (APTI)
2. Life Member of Indian Association of Pharmaceutical Scientists and Technologists (IAPST)